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## 802.11 Wireless LAN

#### **Product Summary**

The ITS 802.11 Wireless LAN product provides 802.11b wireless connection to the state WAN for authorized users. Wireless coverage is provided in specifically installed areas, subject to the performance of the technology's unlicensed radio frequency spectrum and broadcast signal transmission.

The user base for the 802.11 Wireless LAN product are state employees and non-state government employees who travel among state facilities, and those who work in meeting rooms or other common areas at their agency locations.

Agency customers may have ITS install and maintain an 802.11 Wireless LAN in their location(s). Agency customers may instead elect to install an 802.11 Wireless LAN in their location(s) that complies with ITS architecture and installation standards. Wireless LANs, statewide, installed in compliance with the ITS architecture and installation standards will provide secure wireless access for any authorized user—an interoperable enterprise class solution.

Ongoing access to the secure, interoperable 802.11 Wireless LAN system will be provided via the State Wide Area Network (WAN). There will be no additional monthly access charges for paying WAN customers.

#### **Product Features**

	802.11 Wireless LAN Features
Access point	<ul> <li>802.1x IEEE standards compliant.</li> <li>WPA and EAP compatible.</li> <li>Access point options are documented in the ITS 802.11 Wireless LAN Architecture and Standards document.</li> </ul>
RADIUS	Cisco Secure ACS (Access Control Server).
User authorization	<ul> <li>Challenged access limits access to authorized users.</li> <li>Users are authorized by membership in an authentication directory.</li> </ul>
Authentication directory	<ul><li>Utah Master Directory (UMD).</li><li>LDAP compliant.</li></ul>
Network connection	<ul> <li>Segmented Wireless LAN security via wireless VLANs.</li> <li>State employees obtain the same access as their local wired network.</li> <li>Microsoft SMB file sharing is restricted.</li> </ul>
802.11 wireless adapter standards –options for customer purchase	<ul> <li>802.1x IEEE standards compliant.</li> <li>WPA compatible.</li> <li>Approved list of options documented in the ITS 802.11 Wireless LAN Architecture and Standards document.</li> </ul>
Client software standard – options for customer purchase	<ul> <li>Port-based access control client software for adding EAPOL (EAP over LAN) data to the MAC header of the Ethernet frame.</li> <li>Encryption of user credentials and data.</li> <li>Approved list of options documented in the ITS 802.11 Wireless LAN Architecture and Standards document.</li> </ul>
802.11 Architecture and Standards document	<ul> <li>ITS-maintained document detailing the design and standards of the secure, statewide interoperable 802.11 Wireless LAN system.</li> </ul>



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Wireless Access Point Installation documentation	•	ITS-maintained documentation for customer installation of standard wireless access points to comply with the secure, statewide interoperable 802.11 Wireless LAN.
Client Software Installation documentation	•	ITS-maintained documentation for customer configuration of standard client software to comply with the secure, statewide interoperable 802.11 Wireless LAN.
State Interoperable Wireless LAN coverage map	•	ITS-maintained map or other documentation indicating areas throughout the state with Wireless LAN connectivity for authorized users.

## **Product Benefits**

## 802.11 Wireless LAN Benefits

Highest level of authentication and encryption for secure access to state IT resources.

Access provided for authorized users only.

Enterprise interoperability. – Ability for authorized users to access the system at whatever locations in the state it is installed.

Technology and industry standards based. – The product will evolve and be enhanced in step with technology and industry standards.

Enterprise serviceability. – Architecture and standards provide for remote management, configuration, troubleshooting and support of the system.

Expert wireless service. – Specialized radio technicians provide professionally tuned and optimized systems.

## **Services Not Included with this Product**

Services Not Included		
Wireless adapters	Customer agencies are responsible for purchasing standards- approved wireless adapters for their agency users.	
Client software	Customer agencies are responsible for purchasing standards- approved Client Software for their agency users.	
General citizenry access	Wireless LAN access will not extend to citizens.  Agencies may sponsor a "Guest Net" to meet needs for vendors, contractors, lobbyists and other temporary users in their facilities.  A Guest Net will provide limited functionality, such as web browsing and email. Guests may not map drives using MS SMB protocol. All network sessions must start from the local device going out and incoming traffic will not be permitted.	
Support of non-ITS standard • Wireless LANs	ITS will not provide support for any 802.11 system installed by a customer that does not comply with the ITS product standard.	

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## **Related ITS Services**

Related ITS Services		
Site survey and installation estimate	<ul> <li>Professional survey and estimate of equipment and installation required to implement an 802.11 Wireless LAN in customerspecified location(s) and coverage areas.</li> <li>Wireless Specialists utilize radio technology expertise to design a usable system.</li> </ul>	
System installation	<ul> <li>Install access points per site survey.</li> <li>Adjust access points for optimal coverage and signal.</li> <li>Install required router(s) and switch(es).</li> <li>Configure VLAN.</li> <li>Verify coverage and signal.</li> <li>Verify authenticated access.</li> </ul>	
Support for non-installed systems	<ul> <li>Provide network, wiring and/or wireless technical support for 802.11 Wireless LANs installed by a customer using the ITS architecture standards.</li> </ul>	

## ITS Responsibilities

## **ITS Responsibilities**

ITS Customer Relationship Managers are responsible for verifying with the customer agency's IT Director that a 802.11 Wireless LAN order is in line with the agency's IT direction.

ITS—in its responsibility for maintaining the integrity and security of the State WAN, is responsible for shutting down Access Points that have been infiltrated by unauthorized users.

## **Customer Responsibilities**

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The customer is responsible for adhering to their agency's policies and procedures in submitting orders that have been properly approved.

The customer's agency LAN administrator is responsible for configuring their agency's Wireless LAN users' laptops or PDA devices with appropriate Client Software and a Wireless Adapter.

802.11 Wireless LAN users are responsible for complying with the State Acceptable Use Policy and the State Information Security Policy.

## **ITS Customer Support**

#### **ITS Customer Support**

Help Desk business hours are Monday through Friday, 7:30 a.m. to 5:30 p.m.

Help Desk off-hours provide for 24 hours a day, 7 days a week (24x7) customer support.

Problems can be reported 24x7 via phone (538-3440) or on-line (http://its.utah.gov/reportaproblem/reportaproblem.htm).

On-line problem submissions are monitored only during business hours.

Problem prioritization is based on importance of the system affected, severity of system degradation, and number of affected users.

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Problem resolution is managed using a documented Problem Management Process.

Initial contact targets: Low priority – 2 business hours; Medium priority – 2 business hours; High priority – 1 clock hour; and Urgent priority – 30 clock minutes.

Total time to resolution targets: Low priority – 12 business hours; Medium priority – 10 business hours; High priority – 6 clock hours; and Urgent priority – 3 clock hours.

On-line chat enables customers to initiate a live on-line discussion with a member of the Help Desk team.

Resolution performance and escalation performance are measured regularly.

Customer satisfaction is measured regularly.

Outage reports are provided to communicate lessons learned and to explain future preventative measures.

## **System Requirements**

802.11 Wireless LAN System Requirements		
Laptop platforms	<ul><li>Windows XP, 2000, 98 and Millennium Edition.</li></ul>	
PDA platform	■ Windows CE.	
Wireless Adapter	<ul> <li>3COM 802.11 A/B/G with Xjack antenna.</li> <li>Cisco Aironet 350.</li> <li>Enterasys RoamAbout 802.11b.</li> <li>Intel Centrino built-in capability.</li> <li>Any PEAP capable 802.1x compliant device should operate. However manufacturers sometimes implement proprietary features that may cause problems.</li> </ul>	
Client Software	<ul><li>Funk Software Odyssey version 2.2 or better.</li><li>Cisco Aironet Client Utility.</li></ul>	

Additional wireless adapters, device platforms and other components will be added as options to the system requirements list as they are tested and approved.

## **Product Rate for State Employees and Agencies**

802.11 Wireless LAN - Access Rate	
One time charge – User authorization	One time charge of \$10.00 per user to manage and maintain user authorization.
Monthly access charges	State customers already paying monthly WAN fees will not be charged an additional amount for this product service.

802.11 Wireless LAN - Installation Rate	
One time charge – Site Survey and Estimate	Standard ITS labor rates if Wireless or Wiring Technician(s) are required.
	No charge for WAN Planner labor.



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One time charge - Installation	<ul> <li>Access Point(s), antenna(s) and equipment at cost plus the standard administrative fee.</li> </ul>
	Installation at standard ITS labor rates.
	<ul> <li>No charge for WAN Planner labor.</li> </ul>

802.11 Wireless LAN - Optional Support Rate	
Support for customer installed systems (that comply with the ITS standards)	Standard ITS labor rates if Wireless or Wiring Technician(s) are required to troubleshoot or repair system.

## **Product Rate for Non-State Government Employees and Organizations**

802.11 Wireless LAN charges or rates for non-state employees and organizations will be determined and documented in the future.

## **Ordering the Product**

#### Access to the State 802.11 Wireless LAN

Customers may request access to the State 802.11 Wireless LAN by completing a 802.11 Wireless State Network – Access Request Form and submitting it to the ITS Help Desk.

#### 802.11 Wireless LAN Installation

Customers may order a Site Survey and Installation by completing an 802.11 Wireless LAN – Site Survey and Installation Order Form and submitting it to their agency's ITS Customer Relationship Manager.

Once a Site Survey is completed by ITS, the agency's WAN Planner presents the Site Survey and Estimate to the customer. Based on the estimate, the customer may authorize ITS to proceed with installation, or may elect to not proceed.

## **Product Agreement**

ITS and the Customer agree that this Product Description together with an approved Product Order Form constitute a binding agreement between both parties for the Product and related services required by the Customer. This Agreement remains in effect according to the terms specified in the Product Order Form, or until canceled by either party upon a thirty (30) day written notice.

Product and/or Service Rates listed are in accordance with the approved ITS Rate Schedules or Interim Rate Schedule. Therefore, the product description and order form replaces all other documentation, i.e., Contracts, Special Billing Agreements (SBA), Service Level Agreements (SLA), Memorandums of Understanding (MOU), etc.

To the extent that the terms set forth above conflict with an existing Contract, Special Billing Agreement (SBA), Service Level Agreements (SLA), Memorandums of Understanding (MOU), or other agreement between ITS and the customer, the parties acknowledge that the foregoing shall supercede the earlier agreement.